

REMARKS

1. In response to the final Office Action mailed July 17, 2007, Applicants respectfully request reconsideration. Claims 1, 3-15, 17 and 19-21 were last presented in the application. In the outstanding Office Action, all the pending claims were rejected.

2. In this paper claims 1, 3-5 and 13 have been amended and claims 17 and 19-21 have been canceled by way of the present amendment. Thus, upon entry of this paper, claims 1, 3-15 and 17 will remain pending in this application. Of these fourteen (14) claims, two (2) claims (claims 1 and 13) are independent.

3. Based on the following Remarks, Applicants respectfully request that all outstanding rejections be reconsidered, and that they be withdrawn.

Art of Record

4. Applicants thank the Examiner for returning form PTO/SB/08a and PTO/SB/08b filed by Applicants on April 11, 2007, which has been initialed by the Examiner indicating that the Examiner has considered the references cited therein.

Claim Objections

5. In the outstanding Office Action, claims 3-5 and 19 were objected to due to informalities. Reconsideration is respectfully requested. Reconsideration is respectfully requested.

6. Claims 3-5 have been amended to depend upon claim 1 and claim 19 has been canceled by way of the present amendment. Therefore, it is respectfully requested that the outstanding objections be withdrawn.

Claim Rejections

7. Claim 21 was rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,792,460 (hereinafter, "Oulu"). In addition claims 1, 3-15, 17 and 19-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Oulu in view of "The Application Response Measurement (ARM) API, Version 2" (hereinafter, "Johnson"). Based on the above

Amendments and following Remarks, Applicants respectfully request that the rejections be reconsidered and withdrawn.

35 U.S.C. Section 102 Rejections

8. Claim 21 was rejected under 35 U.S.C. 102(e) as being anticipated by Oulu. Claim 21 has been canceled by the present amendment and thus, the outstanding rejection is moot.

35 U.S.C. Section 103 Rejections

9. Claims 1, 3-15, 17 and 19-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Oulu in view of Johnson. Reconsideration is respectfully requested.

10. Independent claims 1 and 13 have been amended to clarify the invention. In particular, claim 1 has been amended to recite:

operating on a bytecode representation of a method or function to be instrumented by inserting an instrumentation code in the bytecode representation of said method or function without modifying the respective source code of said method or function and while classes of said method or function are being loaded for execution;

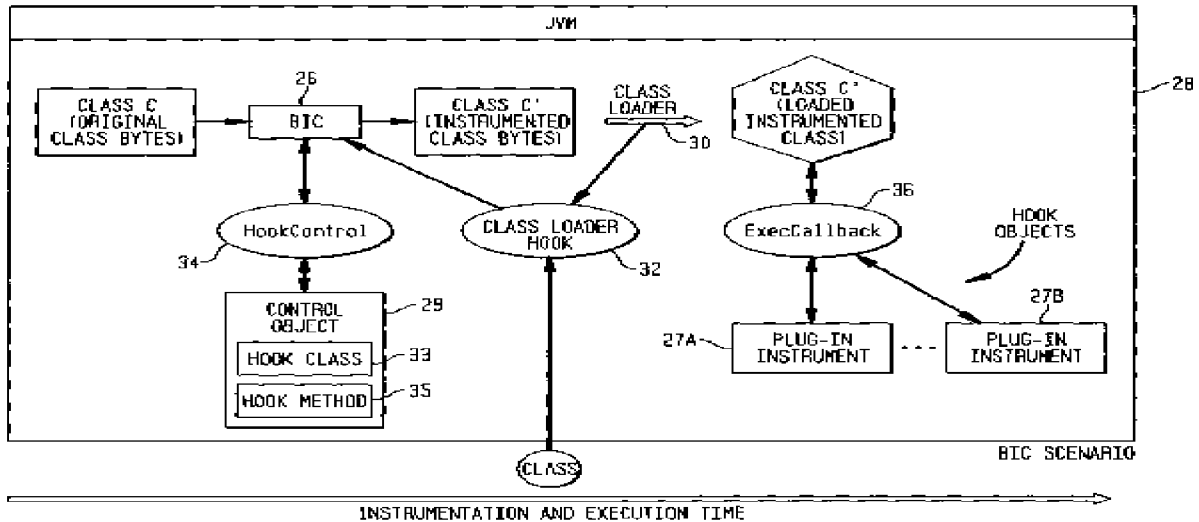
generating a call to an Application Response Measurement (ARM) agent to cause the ARM agent to effect generation of a start time marker upon start of execution of said method or function and a stop time marker upon completion of execution of said method or function, wherein the ARM agent is one of a plurality of agents of an ARM protocol; and

utilizing said start and stop time markers to determine a response time of said method or function.

11. Claim 13 has been similarly amended. Support for the amendments is provided by **FIG. 2**, as shown below, and the original specification which discloses the invention can include a bytecode instrumentation engine that can be utilized to modify the bytecode associated with a Java application at any time prior to, or during, the loading and initialization of the bytecode by a

Java virtual machine (JVM). In particular, the specification discloses a Bytecode

FIG. 2

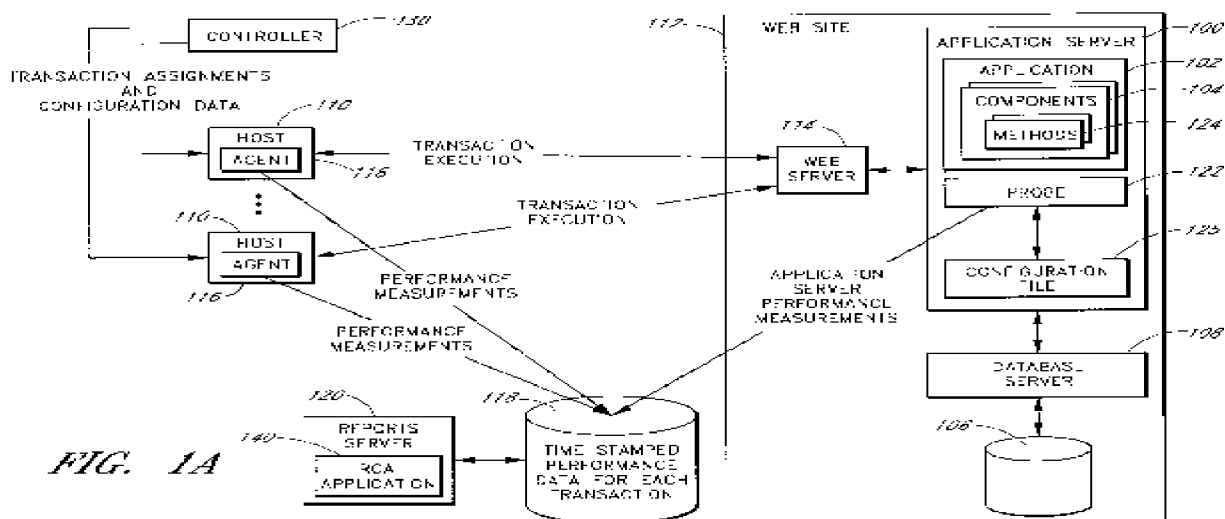


Instrumentation Controller (BIC) tool 26 that: (1) identifies, upon communication with the HookControl interface 34, one or more methods (e.g., source code applications) for instrumentation; (2) operates on the bytecode representations of these methods to insert instrumentation code and (3) generates a wrapper method that contains the instrumentation code for determining the response time of that method. Further, the specification discloses the BIC tool 26 generates wrapper methods "on-the-fly", as the bytecode representations of these methods are about to be loaded onto the JVM and that the BIC tool 26 instruments selected methods of Java classes *without modifying their respective source codes and while the classes are being loaded for execution* (emphasis added). Therefore, it is respectfully submitted that the amendments to the claims do not raise any question of new matter.

12. Oulu discloses a monitoring system monitors the amount of time spent by specific application components, such as Java components, during execution of specific web site transactions.¹ In particular, as shown in FIG. 1A below, Oulu discloses the task of monitoring an application 102 during transaction execution is performed by a probe 122 installed on the application server 100 of the web site 112 to allow each such application server to be monitored.

¹ Oulu at ABSTRACT.

Further, Oulu discloses the probe **122** operates generally by monitoring and reporting the execution of specific components **104** to measure the execution times of such of components, and optionally the execution times of specific methods **124** (procedures, functions, routines, etc.)



used by such components. Furthermore, Oulu discloses the probe **122** records the execution start and stop times of some or all of the components **104** called by the servlet/JSP.

13. However, Oulu nowhere discloses, as amended independent claim 1 recites:

operating on a bytecode representation of a method or function to be instrumented by inserting an instrumentation code in the bytecode representation of said method or function without modifying the respective source code of said method or function and while classes of said method or function are being loaded for execution (emphasis added).

Claim 13 has been similarly amended. That is, though Oulu discloses a case where instrumentation of the class source **602** is not necessary: "if the class source **602** contains function calls to methods that are equivalent to the instrumenting methods," Oulu nowhere discloses only "operating on a bytecode representation of a method or function to be

instrumented by inserting an instrumentation code” and doing so “without modifying the respective source code of said method or function and while classes of said method or function are being loaded for execution,” as recited in claim 1 and in similar language in claim 13. Thus, it is respectfully submitted that Oulu does not disclose the claimed invention.

14. In addition, the outstanding Office Action acknowledges other deficiencies in Oulu and attempts to overcome those deficiencies by combining Johnson with Oulu. However, as discussed below, Johnson cannot overcome all of the deficiencies of Oulu.

15. As shown in **Figure 1** below, Johnson discloses that the Application Response Measurement (ARM) Application Programming Interface (API) can use a plurality of ARM Agents and ARM APIs to pass vital information to Management Applications about when a transaction (e.g., “Business Applications” as shown in **Figure 1**) running on a Clients or Servers start and/or stop.

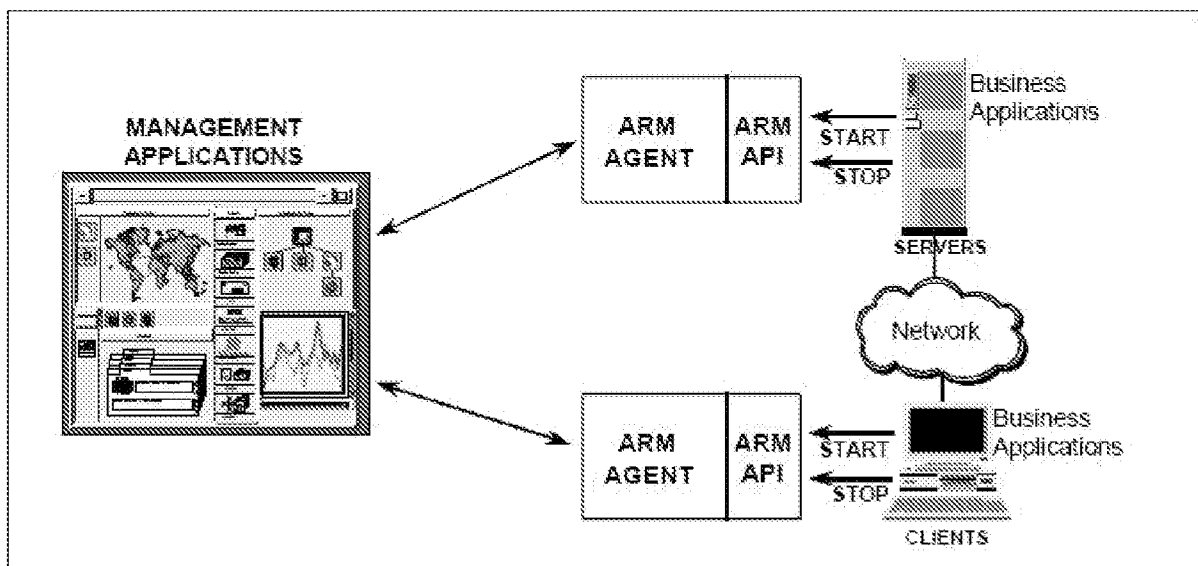


Figure 1. Overview of the ARM API

16. However, Johnson nowhere discloses, as amended independent claim 1 recites:

operating on a bytecode representation of a method or function to be instrumented by inserting an instrumentation code in

the bytecode representation of said method or function *without modifying the respective source code of said method or function and while classes of said method or function are being loaded for execution* (emphasis added).

17. Claim 13 has been similarly amended. That is, Johnson nowhere discloses only “operating on a bytecode representation of a method or function to be instrumented by inserting an instrumentation code” and doing so “without modifying the respective source code of said method or function and while classes of said method or function are being loaded for execution,” as recited in claim 1 and in similar language in claim 13. Thus, Johnson cannot overcome all of the deficiencies of Oulu. Therefore, it is respectfully submitted that neither Oulu nor Johnson, whether taken alone or in combination, do not disclose, suggest or make obvious the claimed invention and that claim 1 and claim 13, and claims dependent thereon, patentably distinguish thereover.

Dependent Claims

18. The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter which makes them *a fortiori* independently patentable over the art of record. Accordingly, Applicants respectfully request that the outstanding rejections of the dependent claims be reconsidered and withdrawn.

Conclusion

19. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

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Respectfully submitted,

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